

DTC	P0340	Camshaft Position Sensor Circuit Malfunction
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CIRCUIT DESCRIPTION

Camshaft position sensor (G22 signal) consist of signal plate and pick up coil. The G22 signal plate has one tooth on its outer circumference and is mounted on the exhaust camshaft. When the camshafts rotate, the protrusion on the signal plate and the air gap on the pick up coil change, causing fluctuations in the magnetic field and generating an electromotive force in the pick up coil. The NE signal plate has 34 teeth and is mounted on the crankshaft. The NE signal sensor generates 34 signals for every engine revolution. The ECM detects the standard crankshaft angle based on the G22 signals and the actual crankshaft angle and the engine speed by the NE signals.

DTC No.	DTC Detecting Condition	Trouble Area
P0340	No camshaft position sensor signal to ECM during cranking. (2 trip detection logic)	<ul style="list-style-type: none"> • Open or short in camshaft position sensor circuit • Camshaft position sensor
	No camshaft position sensor signal to ECM with engine speed 600 rpm or more	<ul style="list-style-type: none"> • Camshaft timing pulley • ECM

WIRING DIAGRAM

Refer to DTC P0335 (Crankshaft Position Sensor "A" Circuit Malfunction) on page [DI-72](#) for the WIRING DIAGRAM.

INSPECTION PROCEDURE

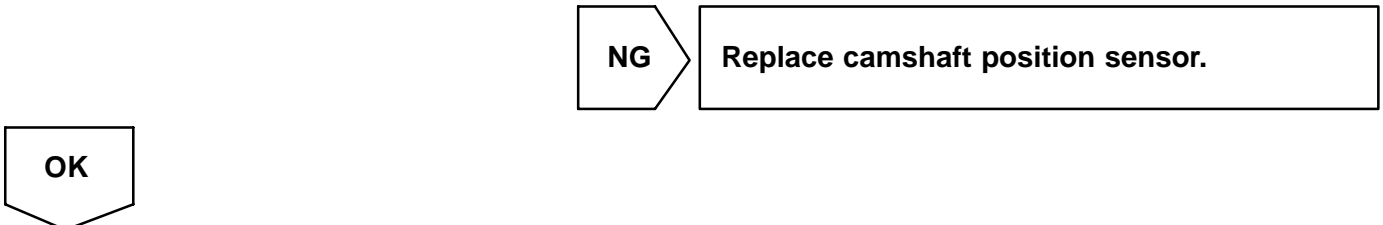
HINT:

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected, when troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

1	Check resistance of camshaft position sensor (Signal generator) (See page IG-1).
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Reference: INSPECTION USING OSCILLOSCOPE

Refer to DTC P0335 (Crankshaft Position Sensor "A" Circuit Malfunction) on page [DI-72](#) for the INSPECTION USING OSCILLOSCOPE.



2 Check for open and short in harness and connector between ECM and camshaft position sensor (See page [IN-29](#)).

NG

Repair or replace harness or connector.

OK

3 Inspect sensor installation and tooth of camshaft timing pulley (See page [EM-15](#)).

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Tighten the sensor.
Replace camshaft timing pulley.

OK

Check and replace ECM (See page [IN-29](#)).